

AMENDMENTS TO THE CLAIMS

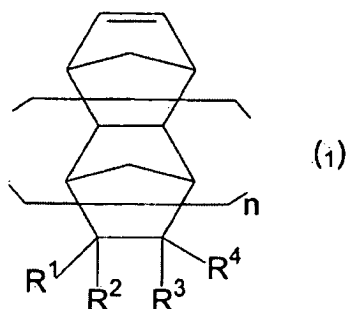
1. (Currently amended) A radiation sensitive resin composition which is capable of forming a positive pattern resin film which comprises (A) an alicyclic olefin resin soluble in an alkali, (B) an acid-generating agent, (C) a crosslinking agent and (D) a solvent, wherein the alicyclic resin soluble in an alkali is a ring-opening polymer having an acidic group which is obtained by ring-opening polymerization of a polymerizable monomer comprising an alicyclic olefin monomer having an acidic group in a presence of a catalyst comprising ruthenium, followed by hydrogenating an obtained polymer,

wherein the catalyst comprising ruthenium is a catalyst comprising as a main component an organoruthenium compound in which a neutral electron-donating ligand is coordinated,

wherein said crosslinking agent is a compound capable of forming a crosslinked structure between molecules of the crosslinking agent by heating.

2. (Original) A radiation sensitive resin composition according to Claim 1, wherein the acidic group is carboxyl group or phenolic hydroxyl group.

3. (Original) A radiation sensitive resin composition according to Claim 1, wherein the alicyclic olefin monomer having an acidic group is an alicyclic olefin monomer represented by following formula (1):



wherein R^1 to R^4 each independently represent hydrogen atom or a group represented by $-X_m-$

R', X representing a divalent group, m representing 0 or 1, and R' representing an alkyl group having 1 to 7 carbon atoms which may have substituents, an aromatic group or an acidic group; at least one of R¹ to R⁴ represents a group represented by -X_m-R' in which R' represents an acidic group; and n represents an integer of 0 to 2.

4. (Canceled)

5. (Previously presented) A radiation sensitive resin composition according to Claim 1, wherein the neutral electron-donating ligand is a heterocyclic carbene compound having nitrogen atom.

6. (Original) A radiation sensitive resin composition according to Claim 1, wherein the polymerizable monomer further comprises an alicyclic olefin monomer in which a group having an aromatic group and an aprotic polar group are bonded.

7. (Canceled)

8. (Previously presented) A transparent resin pattern film formed in accordance with a process described in Claim 10.

9. (Original) A resin film for electronic parts comprising a resin pattern film described in Claim 8.

10. (Currently amended) A process for forming a positive pattern resin ~~pattern~~ film on a substrate which comprises laminating a resin film comprising a radiation sensitive resin composition which comprises (A) an alicyclic olefin resin soluble in an alkali, (B) an acid-generating agent, (C) a crosslinking agent and (D) a solvent, wherein the alicyclic resin soluble in an alkali is a ring-opening polymer having an acidic group which is obtained by ring-opening polymerization of a polymerizable monomer comprising an alicyclic olefin monomer having an acidic group in a presence of a catalyst comprising ruthenium, followed by hydrogenating an obtained polymer to

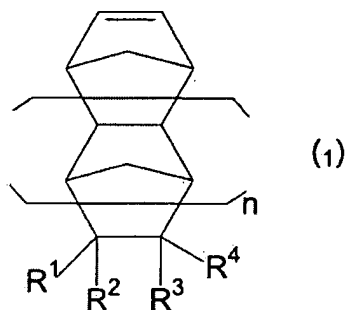
the substrate, irradiating said resin film with an active radiation to form a latent positive pattern in the resin film and developing ~~a pattern~~ the pattern by bringing the resin film having the latent pattern into contact with a developing solution to obtain a developed pattern, and post-baking by heating to cure the obtained pattern,

wherein the catalyst comprising ruthenium is a catalyst comprising as a main component an organoruthenium compound in which a neutral electron-donating ligand is coordinated,

wherein said crosslinking agent is a compound capable of forming a crosslinked structure between molecules of the crosslinking agent by heating.

11. (Previously presented) A process according to Claim 10, wherein the acidic group is carboxyl group or phenolic hydroxyl group.

12. (Previously presented) A process according to Claim 10, wherein the alicyclic olefin monomer having an acidic group is an alicyclic olefin monomer represented by following formula (1):



wherein R^1 to R^4 each independently represent hydrogen atom or a group represented by $-X_m-R'$, X representing a divalent group, m representing 0 or 1, and R' representing an alkyl group having 1 to 7 carbon atoms which may have substituents, an aromatic group or an acidic group; at least one of R^1 to R^4 represents a group represented by $-X_m-R'$ in which R' represents an acidic group; and n represents an integer of 0 to 2.

13. (Previously presented) A process according to Claim 10, wherein the catalyst comprising ruthenium is a catalyst comprising as a main component an organoruthenium compound in which a neutral electron-donating ligand is coordinated.
14. (Previously presented) A process according to Claim 13, wherein the neutral electron-donating ligand is a heterocyclic carbene compound having nitrogen atom.
15. (Previously presented) A process according to Claim 10, wherein the polymerizable monomer further comprises an alicyclic olefin monomer in which a group having an aromatic group and an aprotic polar group are bonded.
16. (New) A radiation sensitive resin composition according to Claim 1, wherein the acid-generating agent is capable of providing a positive pattern.
17. (New) A radiation sensitive resin composition according to Claim 16, wherein the acid-generating agent capable of providing a positive pattern is a quinonediazidesulfonic acid ester obtained from a quinonediazidesulfonic acid halide and a phenol having at least one phenolic hydroxyl group.
18. (New) A radiation sensitive resin composition according to Claim 17, wherein the quinonediazidesulfonic acid halide is 1,2-naphthoquinone- diazide-5-sulfonic acid chloride.
19. (New) A radiation sensitive resin composition according to Claim 18, wherein the phenol is selected from the group consisting of 2,3,4-trihydroxy- benzophenone, 2,3,4,4'-tetrahydroxybenzophenone, 2-bis(4-hydroxy- phenyl)propane, tris(4-hydroxyphenyl)methane, 1,1,1-tris(4-hydroxy-3- methylphenyl)ethane, 1,1,2,2-tetrakis(4-hydroxyphenyl)ethane, 1,1,3-tris- (2,5-dimethyl-4-hydroxyphenyl)-3-phenylpropane, an oligomer of novolak resins and an oligomer obtained by copolymerization of phenols and dicyclopentadiene.

20. (New) A process for forming a resin pattern film according to Claim 10, wherein the acid-generating agent is capable of providing a positive pattern.

21 (New) A process for forming a resin pattern film according to Claim 20, wherein the acid-generating agent capable of providing a positive pattern is a quinonediazidesulfonic acid ester obtained from a quinonediazidesulfonic acid halide and a phenol having at least one phenolic hydroxyl group.

22. (New) A process for forming a resin pattern film according to Claim 21, wherein the quinonediazidesulfonic acid halide is 1,2-naphthoquinone- diazide-5-sulfonic acid chloride.

23. (New) A process for forming a resin pattern film according to Claim 22, wherein the phenol is selected from the group consisting of 2,3,4-trihydroxy- benzophenone, 2,3,4,4'-tetrahydroxybenzophenone, 2-bis(4-hydroxy- phenyl)propane, tris(4-hydroxyphenyl)methane, 1,1,1-tris(4-hydroxy-3- methylphenyl)ethane, 1,1,2,2-tetrakis(4-hydroxyphenyl)ethane, 1,1,3-tris- (2,5-dimethyl-4-hydroxyphenyl)-3-phenylpropane, an oligomer of novolak resins and an oligomer obtained by copolymerization of phenols and dicyclopentadiene.

24. (New) A resin film of a positive pattern which is formed of a radiation sensitive resin composition which comprises (A) an alicyclic olefin resin soluble in an alkali, (B) an acid-generating agent, (C) a crosslinking agent and (D) a solvent, wherein the alicyclic resin soluble in an alkali is a ring-opening polymer having an acidic group which is obtained by ring-opening polymerization of a polymerizable monomer comprising an alicyclic olefin monomer having an acidic group in a presence of a catalyst comprising ruthenium, followed by hydrogenating an obtained polymer,

wherein the catalyst comprising ruthenium is a catalyst comprising as a main component an organoruthenium compound in which a neutral electron-donating ligand is coordinated,

wherein said crosslinking agent is a compound capable of forming a crosslinked structure between molecules of the crosslinking agent by heating, and

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wherein said resin film formed of said resin composition is cured by heating (post baking) after the positive pattern of the resin film is developed.